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978-0-521-70165-5 - Scarcity and Frontiers: How Economies Have Developed Through
Natural Resource Exploitation

Edward B. Barbier

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Scarcity and Frontiers

Throughout much of history, a critical driving force behind global economic development has been the response of society to the scarcity of key natural resources. Increasing scarcity raises the cost of exploiting existing natural resources and creates incentives in all economies to innovate and conserve them. However, economies have also responded to increasing scarcity by obtaining and developing more of these resources. Since the Agricultural Transition over 12,000 years ago, this exploitation of new “frontiers” has often proved to be a pivotal human response to natural resource scarcity. This book provides a fascinating account of the contribution that natural resource exploitation has made to economic development in key eras of world history. This not only fills an important gap in the literature on economic history but also shows how we can draw lessons from these past epochs for attaining sustainable economic development in the world today.

EDWARD B. BARBIER is the John S. Bugas Professor of Economics in the Department of Economics and Finance, University of Wyoming. He has over twenty-five years’ experience as an environmental and resource economist, working mainly on the economics of environment and development issues. He is the author of many books on environmental policy, including *Natural Resources and Economic Development* (Cambridge University Press, 2005) and, with David Pearce, *Blueprint for a Sustainable Economy* (2000).

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*“That men do not learn very much from the lessons of
history is the most important of all the lessons of history.”*

Aldous Huxley

*“The history of almost every civilization furnishes examples
of geographical expansion coinciding with deterioration in
quality.”*

Arnold Toynbee

*“Where there is an open mind, there will always be a
frontier.”*

Charles Kettering

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Preface

The genesis of this book began with another volume, *Natural Resources and Economic Development*, which was published in 2005 by Cambridge University Press.¹ The purpose of the latter book was to explore a key paradox in the contemporary world economy: why is natural resource exploitation not yielding greater benefits to the poor economies of Africa, Asia and Latin America? To better understand this paradox, I thought that it might be important to contrast the less successful resource-based development of present times with past epochs of economic development in which the exploitation of natural resources clearly played an important, and more successful, role. Thus, in my 2005 book, I included a chapter entitled “Natural resource-based economic development in history.” I published subsequently an article based on this chapter in *World Economics*.²

However, it soon became apparent that a chapter or journal article was not sufficient to explore the contribution of natural resource exploitation in influencing processes of economic development in key eras of world history. Nor would it be possible through any short historical review to shed light on the many parallels between these past epochs and the current era of global economic development and patterns of resource use.

But what finally convinced me to write this book was the realization that the role of natural resources in shaping economic development has been somewhat of a neglected topic in the study of history. This omission seems surprising, given that the exploitation of land and other natural resources has clearly been an important feature of economic development for most of global history. A study focusing on how economies have developed through exploiting natural resources might therefore be a useful contribution to the existing literature.

I also felt that such a contribution might be warranted, given two important developments in the study of history. First, environmental history – the study of humans and nature and their past interrelationships – has become an important subdiscipline within history. Thanks

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to this growing subject area, there are now more studies of how past environmental conditions and events have influenced human history and, as a result, a strong interest in understanding this linkage further from an economic perspective.³

Second, economic history – the study of how economic phenomena evolved from a historical perspective – has experienced a renaissance in recent years. One reason, as cited by the economic historian Nathan Nunn, is the emergence of an exciting new literature that is examining whether historic events and epochs are important determinants of economic development today.⁴ Perhaps it was time to show how the lessons from successful resource-based development in the past might inform our current efforts to grapple with environmental problems and their influence on present-day economies.

The focus of this book on how economies have developed through natural resource exploitation, especially by exploiting new frontiers of land and natural resources, has received even less attention in contemporary economics. The economists Ron Findlay and Mats Lundahl assert that the analysis of frontier-based development “has been used extensively by historians and geographers for a wide variety of times and places, but has been neglected by economists.”⁵ As explained in Chapter 1, the book’s title, *Scarcity and Frontiers*, was chosen to emphasize the economic importance of such a pattern of development. Throughout much of history, a critical driving force behind global economic development has been the response of society to key natural resources. Increasing scarcity raises the cost of exploiting existing natural resources, and will induce incentives in all economies to innovate and conserve more of these resources. However, human society has also responded to natural resource scarcity not just through conserving scarce resources but also by obtaining and developing more of them. Since the Agricultural Transition over 12,000 years ago, exploiting new sources, or “frontiers,” of natural resources has often proved to be a pivotal human response to natural resource scarcity.

This long process of history in which finding and exploiting new sources of land and natural resources has been fundamental to economic development may hold some lessons for the environmental and resource challenges facing the world economy currently. Thus, a key aim of this book is to demonstrate that examining how economies have developed historically through natural resource exploitation may help us understand better the role of scarcity and frontiers in today’s economies. If the following book succeeds in this aim,

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then perhaps the study of how natural resource use influences economic development, both past and present, will not be such an overlooked topic.

Notes

- 1 Barbier (2005a).
- 2 Barbier (2005b).
- 3 For example, some of the broad surveys in environmental history that have influenced this book include Chew (2001); Diamond (1997, 2005); Marks (2007); McNeill (2000); McNeill and McNeill (2003); Ponting (1991); and Richards (2003).
- 4 Nunn (2009). As we shall see in this book, some of this “exciting new literature” identified by Nunn, such as Engerman and Sokoloff (1997, 2002) and Acemoglu *et al.* (2001, 2002), has raised important issues concerning the historical relationship between natural resource use and economic development.
- 5 Findlay and Lundahl (1994, p. 70).

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